

Editorials

There Has to Be a God Somewhere

ELSEWHERE in this issue are two articles that discuss the present ethical, philosophic and legal status of either beginning or terminating what is being referred to (without really defining it) as extraordinary life support. The problem is who will decide whether someone should be allowed to die, let us say naturally, when the chances of survival or quality of life are slim. It was not too long ago that a family's physician could advise that "auntie" had lived a good life and that her "time had come," and that there was nothing more to be done except to make her comfortable. This was usually accepted by all concerned, often with some relief since the doctor had made the hard decision for them. But then it became possible to do more for persons in what had formerly appeared to be a hopeless or terminal condition. Physicians who had practiced as just described were accused of playing God—that is, of making life and death decisions more or less on their own. Indeed they had, albeit always in what they perceived as the best interest of the patient and family.

But what once may have been a largely private affair among doctor, patient and family, has now gone public—that is, it is being subjected to public scrutiny—and it is not yet clear where the role of God is to be played, if anywhere. It is now widely held that a patient should have the most to say about the use of extraordinary life support for his or her own person when able to do so. But it is not so often pointed out that by insisting that everything be done to preserve or prolong his or her own life, a patient may unfairly command the use of scarce resources needed by others and engender substantial costs that then must be paid by someone else. And who is to decide? Who is to play God here? Then if a patient is unconscious or incompetent, there is much attention now being paid to what someone else (a guardian, a family or perhaps a court) thinks the patient would have wanted done in the given circumstances—a difficult or almost impossible thing to ascertain unless, of course, someone is empowered by law to play the role of God in this instance. The so-called "living will," the California Natural Death Act and California's Durable Power of Attorney for Health Care are examples of efforts to strengthen the role a patient can play in determining his or her use of extraordinary life support should this become necessary. The well-known court cases discussed in these two papers describe the legal thickets that are created as judges wrestle with whether to or how to play God in these difficult situations. It is clear that neither legislation nor case law has yet dealt adequately with what should be the public's role in these very hard decisions in patient care.

The President's Commission for the Study of Ethical Problems in Medicine and in Biomedical and Behavioral Research produced the document "Deciding to Forego Life Sustaining Treatment." It raises the issue of what is extraordinary in modern medicine and notes that the distinction between what is ordinary and extraordinary treatment is blurred in modern patient care. It asks whether the proposed treatment is "proportionate or disproportionate" in terms of benefits to be gained versus the burdens caused. As suggested by Dr Jonsen in this month's Medical Staff Conference, we may now expect more discussion of what is a benefit and what is a burden and what is proportionate or disproportionate in any given case. Since these too will all be matters of judgment, it is hard not to believe that somewhere someone will have to play God and make these individual life and death judgmental decisions, unless somehow the God becomes an impersonal rule of law.

The two articles in this issue tell us where we are now with this complex problem, but they do not answer the question "Where is the God who in the final analysis must decide each case?" Things being the way they are, physicians may be thankful they are being relieved of this responsibility, except to offer their expert professional advice and opinion to whoever in the end must play God. But it seems that there has to be a God somewhere.

MSMW

More Terrible Than Death

We must all die. But if I can save him from days of torture, that is what I feel is my great and ever new privilege. Pain is a more terrible lord of Mankind than even death itself.

Thus did the great humanitarian Albert Schweitzer elegantly characterize pain and what he perceived to be his role in effectively relieving it. Certainly, the relief of pain has always been one of the most important reasons for the existence of physicians and, even today, one of our most important *raison d'être*. Ample comprehension of pain and its mechanisms and the proper application of therapeutic modalities currently available are essential to the proper management of patients with acute and chronic pain.

Fields and Levine in their Medical Progress article, "Pain—Mechanisms and Management," present an excellent, concise overview of current concepts of the anatomic, physiologic and biochemical substrates of pain mechanisms and pain modulation and brief discussions of some therapeutic modalities that can be

used for pain relief. A very important point they make is that acute and chronic pain are different in regard to mechanisms and symptoms and in the approach to diagnosis and therapy. Another important aspect of the presentation is their focus on the changes in concepts regarding the clinical application of some forms of therapies, and the development of new ones as a result of recently acquired scientific information.

The value and relevance of this paper to clinicians are underscored by the fact that today, as in the past, proper management of patients with acute and chronic pain, including cancer pain, remains one of the most important and pressing issues of the health care system of this nation and other developed countries.¹ This importance stems from the fact that acute and chronic pain that requires therapy by physicians and other health professionals afflicts millions of people, and a significant number of patients with acute pain, and many with chronic pain, are inadequately managed. Consequently, pain is the most frequent cause of suffering and disability and seriously impairs the quality of life of millions of people. In most patients with arthritis, headache, neuralgia and other chronic painful conditions, it is *not* the underlying pathology but the pain that is usually the primary factor that impairs a patient's ability to carry on a productive life.

Although statistics from comprehensive national epidemiologic studies are not available, data from a number of local and regional surveys on various acute and chronic painful disorders suggest that annually pain afflicts nearly half of the American population. Of the 90 million Americans with chronic pain, some 55 to 60 million are partially or totally disabled for periods of days, weeks and months and some permanently. This results in the loss of more than 700 million workdays, which this year, together with the costs of health care services, compensation and litigation, totals \$60 to \$65 billion.^{1,2} Consequently, pain in general—and chronic pain in particular—is a serious national economic problem and a major health problem.

There is impressive evidence that in the recent past, a large percentage of patients with postoperative pain, posttraumatic pain, severe pain associated with acute myocardial infarction, acute pancreatitis and other acute visceral disease—and most patients with post-burn pain—have been inadequately relieved.³⁻⁵ Moreover, many patients with nonneoplastic chronic pain have not responded to the usual medical therapy and impressive numbers have been exposed to the high risks of iatrogenic complications including drug toxicity, drug dependence and multiple, often useless, at times mutilating, operations.^{1,6} A significant number of these patients have given up on medical care and have consulted quacks who not only have depleted their economic resources, but at times have done harm. Some patients with severe, intractable chronic pain have become so desperate as to contemplate or actually commit suicide. Patients with cancer pain have fared no better, and indeed there are numerous reports indicating that many patients with advanced cancer have

lived the last months of their lives with unrelieved severe pain.⁷

There are many reasons for these serious deficiencies. For one, until two decades ago, the amount of research on pain and its mechanisms was meager and most of the small number of scientists involved were not concerned with clinical pain. This was especially true of chronic pain states, because most scientists did not appreciate the differences between acute and chronic pain. Moreover, the widespread assumption that pain was a purely sensory experience achieved via a simple, straightforward neural system caused emotional and psychologic factors to be relegated secondary roles, or as by-products of the sensation. This and other factors discouraged psychologists and behavioral scientists from being involved in pain research. Consequently, the crucial role of psychologic and environmental factors in causing chronic pain behavior had not been defined. Other deficiencies included the lack of national epidemiologic studies and the meager funds spent on pain research, even by the most affluent countries in the world. Thus we note that for the period 1971 to 1974, the National Institutes of Health spent about 0.03% of its annual budget to support research on pain mechanisms.¹

Improper application of available therapies is an even more important reason for past deficiencies in pain control because we do have a variety of drugs and other procedures that, if properly applied, could provide effective relief. Several studies have shown that many physicians prescribe narcotics at two thirds of the doses required to relieve severe pain, and that nurses underadminister drugs by one third.^{3,4} These studies show that the health professionals involved have an inadequate knowledge of the pharmacology of narcotics and consequently underestimate their effective dose range, overestimate their duration of action and have misconceptions about the potential for addiction and physical dependence. Moreover, some physicians do not appreciate that a number of other therapeutic modalities that could be used alone, or in conjunction with narcotics, might provide more effective pain relief. The blame for these deficiencies should not be placed on physicians and nurses, but must be assumed by medical and nursing schools, most of which do not provide effective and clinically relevant courses in the basic principles of managing acute and chronic pain. Moreover, the *symptomatic* treatment of pain is usually neglected in textbooks and journals: a review of 16 standard textbooks on medicine, surgery and oncology published in this country showed that of a total of 22,000 pages, only 52 pages are devoted to a description of the symptomatic treatment of severe acute or cancer pain.^{1,8} In addition to inadequate diffusion of information, there has also been poor communication between investigators and clinicians, and consequently there has been a great lag in the clinical application of new information.

Fortunately, during the past two decades some developments have taken place that, if sustained and ex-

panded, hold out the promise of helping to rectify some of the above deficiencies. One of these has been the recent surge of interest and major efforts in pain research by a number of basic and clinical scientists and, in their collaborations with practitioners, efforts to begin to solve some of the major clinical pain problems. Fields, one of the authors of the article, has been in the forefront, both as scientist and clinician, and, in collaboration with Basbaum, Levine and others, has made critically important contributions to various aspects of pain research and therapy.

As pointed out in the article, during the past two decades we have acquired a great deal of new information that has greatly enhanced our knowledge of sensory coding and sensory modulation and has brought about a significant change in our perceptions of clinical pain and pain treatment. One important issue discussed by Fields and Levine is the recent psychologic and behavioral studies that have provided impressive evidence that the medical model does not adequately explain the abnormal illness behavior manifested by some patients with chronic pain, and that the inclusion of a behavioral model of pain is necessary. This emphasis that chronic pain behavior results primarily from reinforcing environmental influences, or so-called operant mechanisms, is long overdue and has had a favorable impact on the management of a number of patients with chronic pain. However, while this mechanism is responsible for chronic pain behavior in some patients, they represent only a fraction of the chronic pain population. In most patients who have arthritis, cancer, neuralgia, reflex sympathetic dystrophy and a host of other chronic pain syndromes, the persistent pain complaint is not the result of learning, but rather is caused by a persistent dysfunction of the nociceptive system.

In addition to the new and exciting developments mentioned by Fields and Levine, there have been significant advances in a number of other areas of pain research and therapy.² Some of these include (1) development and clinical trial of a large number of other cognitive and cognitive-behavioral methods of pain control; (2) better methods of pain evaluation; (3) the development of animal models for chronic pain including that due to nerve injuries and deafferentation caused by nerve section, rhizotomy and even tooth pulp injury, and (4) vast improvements in communication and diffusion of information. Moreover, an ever-increasing number of physicians and other health professionals have shown interest in acquiring more knowledge about pain and its treatment. The new knowledge of the serious pathophysiologic impact of deafferentation on the central nervous system has prompted the virtual abandonment of such techniques as peripheral neurotomy, surgical or chemical spinal rhizotomy and open cordotomy.

It is hoped that the recent momentum of pain research and therapy will continue so that in the not-too-distant future we will be able to achieve more effective control of acute and chronic pain.

The proper management of patients with pain, through more precise scientific information and proper application of therapeutic modalities, remains an important objective and a most gratifying achievement for physicians and biomedical scientists.

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Medicare—Progressively Overburdened and Underfunded

THE PREDICTIONS of bankruptcy for the Medicare program seem very real—whether in 1990 or at some other time. The question is what to do about it. The search for scapegoats, whether they be the health care system in general or physicians in particular, is naive and will do nothing to solve the problem. Actually no one can really be faulted, unless it be the proponents of the program who in 1965 did not, or chose not to, peer very far into what might happen in the years ahead.

Since the Medicare program was enacted in 1965, a great deal has happened that may or may not have been predictable, and more is likely to happen. There have been significant add-ons to the program in the form of additional beneficiaries and new benefits, without provision for additional funding to cover these extra costs. Then there has been inflation, a proliferation of federal regulations in every aspect of health care and a virtual epidemic of tort actions that often result in what seem to be unduly massive judgments against physicians and others in the health care field. All of these in various ways have added to Medicare costs. But perhaps most important of all in adding to Medicare costs has been the extension of the life expectancy of Americans, which means that, as the years have passed, Medicare beneficiaries have remained in the program for increasingly longer periods. This is a direct result of the national investment in medical science and technology, and in improved access to care of good quality, over the past 40 years. The skills